

BYZANTINE MEDICINE IN THE SIXTH AND SEVENTH CENTURIES: ASPECTS OF TEACHING AND PRACTICE

JOHN DUFFY

In the period we are considering—the sixth and seventh centuries—there were two ways of acquiring a medical training in the Greek East: by apprenticeship to a practicing physician and by attendance at the lectures of a professor of medicine. The first was the time-honored one, enshrined for us in the Hippocratic *Oath*, and no doubt the more accessible of the two. But it would not necessarily have been the more desirable way, because higher education through the book, at least until the middle of the seventh century, was an important avenue in the Byzantine world to the professions and to positions in both the civil and the ecclesiastical services.¹ Certainly the more formal study of medicine, particularly in a city like Alexandria, must have given a badge of distinction to a young man which would stand him in good stead for setting up practice and attracting a clientele. We may also remark that those medical men who were sometimes called upon by the state for diplomatic missions probably owed their selection not least to education; they would have belonged to the well-trained elite and the pool of talent available to the authorities for special service.²

We may be sure that it was possible to sit at the feet of a medical sophist in a number of places in the Byzantine Empire, though, if we were to rely on the literature, we would get the impression that it could be done only at Alexandria. This city, which enjoyed a remarkable association with medicine from the time of the first Ptolemies in the third

century B.C. until the Arab conquest nearly a thousand years later, completely drowned out the claims of other centers for a share of the limelight. Much more than, say, Beirut with law, Alexandria became synonymous with doctors and medical studies. If one had qualified in that city, it was something to be mentioned; otherwise, it seems, there was no point in identifying the place of study. Since practically all of our information derives from there, Alexandria of necessity becomes for us the representative of Byzantine medical education as a whole; other centers are not likely to have done much different or to have offered anything more.

To Alexandria students came from all corners of the East and, no doubt, from parts of the West too. In most cases they would have to have been from families who could afford to send a young man abroad, to maintain him away from home for about four years³ and, possibly, to pay the teacher's fees.⁴

On looking into the classroom, we are not greatly surprised to find that the course of study consisted for the most part of reading from the works of Hippocrates and Galen and hearing them expounded by the teacher. Obviously not all of those two authors was read, but a traditional selection which focused on more or less eleven treatises from the Hippocratic Collection and fifteen or sixteen from the large corpus of Galen's writings. This syllabus, tackled in a definite order, was designed to acquaint the learner with the main areas of an extensive subject. In the case of Hippocrates, the reading ranged from the general principles of the

[The reader is referred to the list of abbreviations at the end of the volume.]

¹On the role of higher education see the recent judicious remarks of C. Mango in his *Byzantium: The Empire of New Rome* (London, 1980), 35–36 and 128 ff.

²There is a short article on this topic by R. C. Blockley, "Doctors as Diplomats in the Sixth Century A.D.," in *Florilegium*, 2 (1980), 89–100.

³This estimate of the period of study is taken from L. G. Westerink's "Academic Practice About 500: Alexandria," a paper delivered at the Colloquium on the Transmission of Knowledge, Dumbarton Oaks (1977), and scheduled for publication by Dumbarton Oaks.

⁴The connection, if any, between salaried public doctors and teachers of medicine needs to be explored.

Aphorisms to the specialized discussion in *Women's Diseases*. The chosen works of Galen covered the broad areas of anatomy, physiology, etiology, diagnostics, and therapeutics.⁵ From the point of view of quantity Galen certainly predominated, and even Hippocratic doctrine was presented through a Galenic filter. But in the eyes of the Alexandrians, the "father of medicine" was still very much the sacred figure, and it could be said with some fairness that for them the Hippocratic writings were the "Bible," while Galen by comparison was merely the best commentator.

The most important source for our knowledge of the details of the Alexandrian syllabus is the group of school lecture notes which survive from the sixth and seventh centuries. This corpus of commentaries, while relatively small in size, still gives us a good idea of classroom procedures and pedagogical method. It soon becomes clear to anyone reading this literature that the teacher relies heavily on deliberate repetition as a means to inculcate the central tenets of medical theory and lore. If the student, to give a few simple examples, is frequently reminded over the course of several years that "the natural faculties are four in number,"⁶ or that "our bodies are composed of solids, fluids, and 'airs,'"⁷ or that "Hippocrates calls every kind of tumor a swelling,"⁸ he is not likely to forget the in-

formation in a hurry. The same applies to more elaborate topics, such as the different types of fever or the process by which food is assimilated in the body.

Another salient feature of the lectures is the influence of methods borrowed from the philosophers.⁹ We can see it in the widespread use of *di-airesis*, i.e., in the division of a subject, let us say urines, into a widening series of subdivisions, based on differences such as color and sediment, until the topic is exhausted and felt to be under control. This too must have been a useful aid for memory. The syllogistic method is employed to unravel the tightly knitted thoughts of Hippocrates, who, as the commentators like to say, was "a man of few words." The Aristotelian four causes figure prominently in the lectures, and are put to good use in explaining the etiology of normal and abnormal conditions. In fact, the influence of Aristotle on one commentator was so great that he took the retrograde step of arguing for the heart, and against the brain, as the seat of sensation and the leading principle of the body.¹⁰

Some of the commentaries also reveal elements of what might be called an Alexandrian mode of exegesis. We have, for instance, the lecture notes of both Palladius and John of Alexandria on book six of the *Epidemics*, and from these it is clear that there was a definite procedure for handling the Hippocratic work. It consists of three steps, in which the following points are treated by the lecturer: (1) the wording of the text itself, i.e., variant readings and clarification of individual words; (2) the general meaning of the lemma as a whole; and (3) various explanations of the text by earlier commentators and how to decide between them. The terminology used to describe these distinct operations is very similar in both John¹¹ and Palladius.¹² And to prove that the approach is not peculiar to

⁵A handy and up-to-date version of the complete syllabus will be found in Appendix II of the Westerink article cited in n. 3. There is some question about whether *De sanitae tuenda* was included by the Alexandrians. It would appear that it did not formally belong to the reading list, but was a later addition, perhaps to a Syriac version of the canon, as argued by Elinor Lieber in her valuable paper "Galen in Hebrew: the Transmission of Galen's Works in the Mediaeval Islamic World," in Nutton, ed., *Galen: Problems*, 167–86, esp. 178–79. That the Alexandrians had already attached special importance to the treatise is suggested by the fact that John of Alexandria gives a kind of synopsis of its six books in his commentary on the Hippocratic *Epidemics VI*, 140b1–41 (ed. Pritchett, pp. 286–88). It is also mentioned by Palladius in his lectures on *Epidemics VI* (Dietz, II, 157.10–17). For an older discussion of the Alexandrian canon, see O. Temkin, "Geschichte des Hippokratismus im ausgehenden Altertum," *Kykhlos*, 4 (1932), 1–80, esp. 76 ff.

⁶J. M. Duffy, ed. and trans., *Stephanus the Philosopher: A Commentary on the Prognosticon of Hippocrates* (Berlin, 1983) [CMG XI 1, 2], 132.17 ff.; cf. Stephanus on the *Aphorisms*, Escorialensis Σ.II.10, fol. 121^v and Ambrosianus S 19 sup., fol. 45^v. (Manuscript references are given, since this is for the most part an unpublished commentary; the first full edition, by L. G. Westerink, will appear in the CMG; I thank Professor Westerink for providing me with a typewritten copy of his edition).

⁷John of Alexandria on *Epidemics VI* 148c (ed. Pritchett, p. 402); Stephanus on Galen's *Therapeutics* (Dietz, I, p. 321); Stephanus on the *Aphorisms* (see n. 6), Ambrosianus S 19 sup., fol. 11^r.

⁸John of Alexandria on *Epidemics VI*, 120c 11–13 (ed. Pritchett, p. 9.); Stephanus on the *Prognosticon*, 126.19; Stephanus on the *Aphorisms*, Escorialensis Σ.II.10, fol. 69^v. Westerink (note 3 above)

gives a good illustration of repetition from Stephanus on the *Aphorisms*.

⁹For the special ties between medicine and philosophy in the late Alexandrian period see L. G. Westerink, "Philosophy and Medicine in Late Antiquity," *Janus*, 51 (1964), 169–77 (reprinted in his *Texts and Studies in Neoplatonism and Byzantine Literature* [Amsterdam, 1980], 83–91).

¹⁰His view is cited in Stephanus' lectures on the *Prognosticon* (note 6 above), 126.1–14, where he is referred to as "the new commentator" (ὁ νέος ἐξηγητής).

¹¹John of Alexandria's work in its complete form survives only in a medieval Latin version, edited by Pritchett. However, there are some fragments of the original in a number of Greek manuscripts; in Vaticanus gr. 300 (fol. 192^r) the three steps are given as: (1) σαφηνίζειν τὰς λέξεις, (2) ἡ διάνοια τοῦ παντὸς λόγου, and (3) ἡ διάκρισις τοῦ λόγου.

¹²Palladius' commentary is in Dietz, II, 1–204; for the point we are dealing with see pp. 5–6, 13, and 19.

a discussion of the *Epidemics*, we have the lectures on the *Aphorisms* by Stephanus of Athens, which show an almost identical scheme and several agreements in the technical terms used to describe the individual steps.¹³

As for the teachers themselves, anyone interested in their lives or personalities would be disappointed, because beyond the names of five or six whose works have partly survived we know very little.¹⁴ Only the earliest of them for our period, Gesius, made any sort of name for himself outside the school environment. His fame was due in good part to his outstanding abilities as both teacher and practitioner, and it may be gauged by the fact that Sophronius of Jerusalem devotes a whole chapter of the *Miracles of Cyrus and John* to attacking the man and his reputation.¹⁵ Gesius in his better light even made it into the Byzantine *Who's Who*, the *Suda* lexicon.¹⁶ But this man is clearly an exception and, generally speaking, Alexandrian medical professors, the iatrosophists, were not likely to do anything which would catapult their names beyond the immediate time and place. Judged from their lecture notes they emerge as scholastics who handed on a traditional body of knowledge, based on the classics of ancient medicine. In the *auditorium* they gave their students a solid core of theory and helped them to master the basic tenets of Hippocrates and of the Galenic system. In this respect they were doing no more and no less than their colleagues in the other subjects of higher education.

And here there is a question to be asked about the iatrosophists which deserves some attention. To what extent were these teachers involved in the practice of medicine and, related to this, did their students get any firsthand experience during the period of training? Their contemporaries were inclined to take a negative view of the iatrosophists, and they did not often get a good press. They were targets for the traditional attack on sophists in general, which branded them as being good with words but useless in action. An iatrosophist who could display both qualities was regarded as something of a rare bird; Gesius, whom we have just met, is a case in point. The same attitude is apparent also

early in the seventh century in a poem on Emperor Heraclius by George of Pisidia: the emperor, in one of his decisive actions, is compared to a medical teacher who joins practice to his theory; in other words, an admirable combination and, we may suppose, one that could not be taken for granted.¹⁷

Now it is entirely possible that some teachers spent most of their time with the books and deserved the image of ivory-tower academics; it is conceivable too that some students read medicine as part of a liberal education and had no intention of becoming practicing physicians. However, there is enough evidence to assure us that not all Alexandrian teachers were isolated on an academic island, cut off from the realities of illness and disease, and we will see that it was possible for students also to get to the bedside of the sick. For a start, the teachers themselves were well aware of the difference between preaching and practicing, or, as they would put it, between οἱ λόγοι and τὰ ἔργα τῆς τέχνης. They sometimes protest their primary interest in the works of medicine, and even cite examples from their personal experiences. There is not, to be sure, a great deal of attention paid to the details of actual medical care, but more than enough to convince us that they were fully conversant with the common types of treatment, including drugs.

More impressive, however, is the testimony of Sophronius of Jerusalem, who had occasion himself, around the first decade of the seventh century, to seek help from Alexandrian medical professors for an eye ailment; they failed to cure him and were repaid by being constantly berated in his *Miracles of Cyrus and John*. From the picture of the situation presented by Sophronius there can be no doubt that the iatrosophists were regarded in Alexandria as the leaders of the medical profession,¹⁸ and as such they were automatically consulted, especially in complicated cases. And Sophronius takes us a step further in two of the miracle accounts. In no. 60, concerning a certain Theodore laid low with a fever, we are informed that the patient had been visited by the iatrosophists, who were accompanied by young men. This indicates, firstly, that teachers went on sick calls and, secondly, that students did the rounds and got firsthand experience with the master. These points

¹³Dietz, II, p. 248; Stephanus inserts a fourth point on the usefulness of each aphorism, which he labels τὸ χρήσιμον τῆς ἐννοίας.

¹⁴They are discussed in: W. Bräutigam, *De Hippocratis Epidemiarum Libri Sexti Commentatoribus* (Diss., Königsberg, 1908); O. Temkin (note 5 above), 1–80, esp. 64–74; see also Appendix I of Westerink (note 3 above).

¹⁵Ed. N. Fernández Marcos, *Los Thaumata de Sofronio* (Madrid, 1975), no. 30; the older edition is in P G, vol. 87, part 3.

¹⁶*Suda* (ed. Adler), s. Γέσιος.

¹⁷*Expositio Persica* II 191–92, ed. A. Pertusi, *Giorgio di Pisidia. Poemi I. Panegirici epici* (Ettal, 1959): ὥς οὖν σοφιστῆς τοῖς ἱατρικοῖς λόγοις / πείραν συνάψας. For a different view of what might normally be expected from iatrosophists, see Th. Nissen, "Medizin und Magie bei Sophronios" (= *Sophronios-Studien* III), *BZ*, 39 (1939), 351–52.

¹⁸This is well brought out by Nissen (note 17 above), 352–53.

are confirmed by miracle no. 33, which tells of a woman visited in a dream by the Saints Cyrus and John, disguised as medical personnel—one of them is said to be the teacher and the other his student. In a sense the only surprising thing about these details is that they are never mentioned in the school commentaries, probably because they were taken for granted. So, the image of the Alexandrian iatrosophist as an aloof, armchair doctor is not quite accurate, and the student got some practice, which enabled him to begin his career armed with more than a set of lecture notes.

Since we have introduced the work of Sophronius, it will be appropriate at this point to consider briefly the genre of miracle accounts, a branch of Byzantine literature which, apart from providing useful concrete details about the profession, commonly expresses views on conventional medicine. Here we will confine ourselves to confronting the attitudes projected by these texts, and to spelling out some of the assumptions made by the authors. Two groups of incubation miracles from the seventh century will be considered. One of them, the *Miracles of Cyrus and John*,¹⁹ was written around the year 610 by Sophronius, before he became patriarch of Jerusalem. It describes seventy cases of cures produced at the shrine of the two martyr saints at Menuthis in Egypt, not far from Alexandria, and as we have seen, it throws valuable light on the iatrosophists of that city. The second set, the *Miracles of St. Artemius*,²⁰ is the work of an unknown author who was writing close to the year 660. This text presents forty-five miracles of the martyr Artemius, who had his shrine at the Church of St. John Prodromos in Constantinople and specialized, for an unknown reason, in cases of genital tumors, especially scrotal hernia. It has very interesting information on hospitals in the capital and some tidbits on the practice of surgery.

A composite picture of the medical profession based on these two writers is anything but flattering. At their most charitable they tell us that doctors, relying on the empty doctrines of Hippocrates and Galen, cannot even make a proper diagnosis and would be better off referring their patients to the care of the saints. On the blacker side we find that many physicians are little better than criminals: they are negligent and often make the patient's condition worse; they are only inter-

ested in the victim's money and are prepared, even when a fatal outcome is already certain, to continue treatment in order to collect their fees. The general message, then, is "Do not expect doctors to do anything for you except to take your money and abandon you as soon as your purse is empty." In the same vein the miracle accounts often ridicule the expensive and elaborate preparations of doctors which turn out to be useless, while the healing saints, who ask for no compensation, are able to work wonders with the most paltry substances—very often the candle wax taken from their own shrines.

Let it be said straightaway that this hostile attitude is a traditional pose and typical of the genre. It is a kind of artificial venom, discharged in greater or lesser quantity depending on the mood of the individual author, and, in a way, it is just a more aggressive form of the common pious sentiment that Christ is the real healer, while man's powers are useless compared to His. But the polemic is so relentless and the attacks so pointed that the modern reader may come away with a mistaken impression. He might suppose that the authors, even if not the Church itself, are at heart opposed to conventional medicine and reject the role of the physician. But this is not the case, as we will see by probing into the assumptions being made.

Sophronius and his fellows are not advocating a boycott of medicine; they are not encouraging their contemporaries in case of illness to pass by the doctor and to rely solely on the mercy of God. For a start, practically all the diseases in the miracle stories are presented as incurable conditions; in other words, the patients have first attended the doctor and only after failure there have they approached the saints as hopeless cases. Therefore, it is taken for granted, even by a Sophronius, that the sick normally seek medical help.

There were no doubt holy men and women who, even in serious illness, preferred to entrust themselves to God rather than to doctors, and on the surface the miracle writers may want to be seen as supporters of this ideal faith. But they are well aware of the facts of life, and assume that, ascetics excepted, in the event of injury or sickness the first impulse of the ordinary man is to look for medical help. The proof of this comes from three telling incidents which take place at the shrines themselves. In Sophronius' miracle no. 8 we are told that the steward (*oekonomos*) of the shrine falls ill and seeks medical attention before he realizes that he has the Saints close at hand; in no. 67 when a young

¹⁹ See note 15 above.

²⁰ Ed. A. Papadopoulos-Kerameus in his *Varia Sacra Graeca* (St. Petersburg, 1909), 1–79.

pilgrim injures himself seriously in a suicide attempt, some of the attendants go out to the neighboring villages for a doctor and bring one back to the scene. In the miracles of St. Artemius we read of a priest attached to the church of St. John Prodromos who develops testicle problems, and visits a series of doctors before approaching St. Artemius, whose shrine is in that very church.

Naturally, enough, the authors present these as exceptional cases and as reprehensible lapses of faith. But it would not take much reading behind the lines to realize that the writers' shock at those happenings is little more than a formality and that, for all the hue and cry, there is nothing extraordinary in such behavior. In sum, we can say that though it is certainly not the intention of their authors, the miracle accounts show as well as anything else that for the average Byzantine there was no contradiction between piety and practicality. When the polemic is skimmed off the top, we are left with the stories of desperate cases who have tried all the conventional ways and now travel to the shrines for special help. As for the rest, the sick who are at home and hope to recover, we must imagine that they are still seeing the doctor.

And what do we know about this doctor? We could draw a sketch of him using the two kinds of literature which we have discussed so far—commentaries and miracle accounts—but it would not be easy to do a fuller portrait from them. Luckily there is someone who can help us to fill out the picture, a good guide to the everyday realities of Byzantine medical practice. He is Alexander of Tralles, born in the first half of the sixth century and member of a distinguished family from Asia Minor; his father was a doctor and his four brothers were also professional men, including the famous Anthemius who helped to rebuild St. Sophia in Constantinople. Alexander himself became a physician and spent much of his time abroad, and part of it in Rome. Towards the end of his life he wrote, for the use of doctors, a therapeutic handbook of a traditional kind, going from head to toe or, pathologically speaking, from baldness to gout.²¹ Looked upon as a medical author of the Justinianic period and not, for example, as a minute figure in the grand pageant of Greek Science, Alexander deserves attention—and not a little admiration—on several accounts. For if we could entertain questions about the practical experience of the iatro-

sophists, we can have no doubts about this man's firsthand knowledge. The keynote of his work, already struck in the preface, and heard consistently throughout, is *peira*, experience, and he tells us that now, in his old age and unable to practice any more, he is setting down the cures and treatments which over the years he has found to be most effective. He is one of the very few Byzantine medical writers who bring us close to the physician in action, and he shares with us details of cases from his own practice. This alone is reason enough to look more closely at a few of his attitudes and approaches to the art.

Completely orthodox in theory, Alexander's main mentors among the older writers are Hippocrates and Galen. But when it comes to prescribing remedies, he is no blind follower of the ancients; he knows where to draw the line of respect and is not afraid to assert his independence, even if it means disagreeing with Galen.²² He chooses truth over authority, and the deciding factor is always experience. His thinking on remedies may be summed up as follows: "If they don't work, it doesn't matter what the ancients say about them." He can be fairly critical of doctors in his own day and faults them for not being careful enough in the use of drugs: many physicians, he tells us, are only interested in combating the symptoms²³ and often cause more harm than good.²⁴ He himself, whenever possible, prefers to prescribe dieting or baths or exercise;²⁵ when he has to use drugs, he tries to avoid those that are harsh or known to be dangerous.²⁶ Again, with a glance perhaps at his less competent or less scrupulous colleagues, he reminds the reader that a drug does not have to be complex or expensive in order to be effective.²⁷ He finds it necessary, too, to warn about getting the genuine article, because some doctors are being sold counterfeit pills.²⁸ Finally, he is not at all bashful about recommending his own pills and preparations for the best results.²⁹

Good doctor that he is, Alexander always has the patient uppermost in mind and is very sympathetic to individual feelings and fears. For the patient who does not like barley-gruel—and many people, he

²² E.g., II, 83.15 ff.; 155.16 ff. Puschmann.

²³ I, 577.2–3 Puschmann.

²⁴ II, 5.2 ff. Puschmann.

²⁵ E.g., I, 601.10–11; II, 439.3 ff.; II, 457.14 ff. Puschmann.

²⁶ I, 609.22 ff.; II, 123.19–21 Puschmann.

²⁷ II, 205.12 ff. Puschmann.

²⁸ II, 207.13 ff. Puschmann.

²⁹ I, 547.19 ff.; II, 295.2 ff.; II, 345.6 ff.; II, 427.5 ff. Puschmann.

²¹ Ed. Puschmann, 2 vols.

adds, can't stand the mention of the word—he is willing to substitute oatmeal juice, if it is available.³⁰ For gout sufferers who might not be able to take medicine orally, being suspicious of drugs, or squeamish, or suffering from a stomach ailment, he provides an alternate list of remedies to be applied externally.³¹ In Alexander's book, cases of brain fever deserve special consideration and every effort is made to create a calm and soothing environment for them: the temperature and amount of light in the sickroom are controlled; visitors are screened and nobody, not even a relative, is allowed to enter who has upset the patient in the past; even the number of friends admitted is kept within limits, since a crowd tends to be disturbing and has a bad effect on the quality of the air in the room.³²

In fact Alexander's concern for the treatment and welfare of his patients is so great that he is willing to accept and even to support the use of charms, amulets, and folk remedies. The subject first comes up, not surprisingly, in the part of the work dealing with epilepsy,³³ and is afterwards discussed on several occasions.³⁴ It must be admitted that Alexander is not entirely consistent in presenting his reasons for supporting these unorthodox methods, and it may well be that he felt uncomfortable in divulging his views. At any rate, in his first statements there is a note of defensiveness, and the use of charms and amulets seems to be condoned only in desperate cases when the scientific method has failed. It later transpires, however, that he can advocate their use in other circumstances, even when it seems to be only a matter of accommodating the needs and wishes of his patients. We get the flavor of his thinking from this passage which comes towards the end of recommendations for colic: "I know that anyone using the methods just mentioned would need no other help from outside. However, since many patients, and especially the wealthy ones, object to drinking medicine and to treating their bowels with enemas, they force us to cure the pain with the help of magical amulets. That is why I have thought it worthwhile to give you an account of those also, both the ones which I know from my own experience and those whose effectiveness is vouched for by trusted friends."³⁵

³⁰I, 523.13 ff. Puschmann.

³¹II, 573.25 ff. Puschmann.

³²I, 519.6 ff. Puschmann.

³³I, 557.13 ff. Puschmann.

³⁴E.g., I, 571.21 ff.; II, 319.4 ff.; II, 473.30 ff.; II, 579.14 ff. Puschmann.

³⁵II, 375.10–16 Puschmann.

It is usual to react with disappointment to this aspect of Alexander's work; it is seen as the flaw in what otherwise is a praiseworthy document, an embarrassing blot on a good record. But there is another way of looking at it. Even without arguing for what might be the psychological soundness of Alexander's approach, we may admire the man's candor. For it must have taken a certain amount of courage to openly associate oneself with such practices, at the risk of ridicule and loss of intellectual respectability. Apart from this, the student of the realities of Byzantine life in the sixth century has reason to be grateful to him, because he reveals quite a lot about the place of superstition and magic in a part of Byzantine society where we might not have expected it. We are apt to connect such phenomena more with the lower classes, but this work warns us against underestimating the role of so-called popular beliefs in the upper strata, where Alexander and his patients belong.³⁶

More than many Byzantine authors, including those of technical works, Alexander of Tralles deserves to be taken at face value. Since such a statement cannot be made lightly for any Byzantine writer, I will support it with a few arguments. In the first place, Alexander's aim is severely practical and down-to-earth—to provide a handbook on therapy for the working physician; it is based on earlier material to be sure, but made much more alive than other compilations by incorporating the results of extensive personal experience. Secondly, the author makes a conscious effort to communicate, which is in keeping with his objective; he deliberately chooses, as he explains in the preface, to use clear language and common words, insofar as possible. Finally, if he were mainly in the business of impressing, he would have avoided a risky topic like magic, or at least he would have dissociated himself from its use. For these reasons, then, we would argue that Alexander should be trusted, and that his manual may be believed to contain genuine reflections of medical practice in the author's day.

In his discussion of doctors and other professionals in the later Roman Empire, A. H. M. Jones makes the following observation: "The little that we know of a doctor's life is derived mainly from the papyri and from hagiography. The former suggests that their principal activity was signing

³⁶His patients carry sneezing ointment in ivory boxes (I, 493.19–20 Puschmann); they have large numbers of servants in their houses (I, 515.19–21 Puschmann); for certain types of gastric ailments they are advised to go to warm springs, take sea voyages, or travel on long trips (II, 249.22–25 Puschmann).

medical certificates for the use of the courts and the administration, the latter that their fees were exorbitant and their cures few. Both impressions are no doubt unjust.”³⁷ This is a wise reservation.

On the question of fees we have nothing new to add, since we lack hard and reliable evidence for charges in individual cases; there are some figures mentioned in our two miracle sets, but these are likely to be fanciful exaggerations.³⁸ On the other hand, the texts that we have considered leave no doubt that the papyri—at least those read by Jones—create a very lopsided impression. We hope to have

shown that other documents of the sixth and seventh centuries have much to tell us about the Byzantine medical man as teacher, student, and practitioner; they present the doctor of the period, as we could have expected, busily involved in diagnosing, prognosing, and treating all kinds of diseases and accidental injuries. Obviously it is not possible to measure in any way his rate of success. However, if we allow ourselves to be influenced more by the example of Alexander of Tralles than by the strictures of the miracle accounts, we can come away with the optimistic thought that he was likely to care and to try his best.

University of Maryland

³⁷ *The Later Roman Empire (284–602)* (Norman, 1964), vol. II, 1012–13.

³⁸ In Sophronius’ miracle 40 a doctor asks three *solidi* from a kidney patient; in the *Miracula Artemii* (no. 36) two doctors offer to cure the sick boy of a poor woman, one for twelve, the other for eight *solidi*. An idea of value may be gained from the following: in the early seventh century a bath attendant earned a salary of three *solidi* per annum, and in the time of Justinian the

cost of feeding the average working man for a year was five *solidi*. These figures are taken from Jones (note 37 above), vol. I, 447–48.